

WHAT IS CLAIMED IS:

5 1. Computer-executable process steps to
provide an application programming interface (API),
the application programming interface providing a
common interface between an application program and
plural different types of color measuring devices
each having at least one color measuring sensor, the
computer-executable process steps comprising plural
10 functions for operating any of the plural different
types of color measuring devices, wherein in order
to complete an operation performed by at least one
of the plural functions, the function that performs
the operation must be called a number of times which
15 is different for at least two different types of
color measuring devices, and wherein for a color
measuring device that is being operated, the API
provides the application program with flow control
data of the number of times that the function must
20 be called.

2. Computer-executable process steps
according to Claim 1, wherein the flow control data
is provided by the function which must be called the
25 number of times in order to complete the operation.

3. Computer-executable process steps
according to Claim 2, wherein the flow control data
is provided in the form of a call-again value.
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4. Computer-executable process steps
according to Claim 2, wherein the flow control data
is provided in the form of a numerical value.

35 5. Computer-executable process steps
according to Claim 1, wherein the flow control data
is provided by a separate function other than the

function which must be called the number of times in order to complete the operation.

5 6. Computer-executable process steps
according to Claim 1, wherein functions in the API
provide the application program with display values
which are different for at least two different types
of color measuring devices, the display values for
display to a user so as to instruct the user in
10 manipulating the color measuring device that is
being operated.

15 7. Computer-executable process steps
according to Claim 6, wherein the plural functions
for operating any of the plural different types of
color measuring devices further comprise:

20 a calibrate-position function to calibrate
a relative position of a recording medium with
respect to any of the plural different types of
color measuring devices;

 a calibrate-sensor function to calibrate
any of the color measuring sensors of any of the
plural different types of color measuring devices;

25 a move-to-patch function to relatively
position any of the color measuring sensors and a
color patch for any of the plural different types of
color measuring devices, the move-to-patch function
being provided with a logical color patch number by
the application program; and

30 a make-measurement function to make a color
measurement of the patch at which any of the color
measuring sensors is relatively positioned, the
make-measurement function providing the application
program with a color measurement value for the color
35 patch.

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8. Computer-executable process steps to provide an application programming interface (API), the API providing a common interface between an application program and plural different types of color measuring devices each having at least one color measuring sensor, the computer-executable process steps comprising plural functions for operating any of the plural different types of color measuring devices, the plural functions comprising:

a calibrate-position function to calibrate a relative position of a recording medium with respect to any of the plural different types of color measuring devices;

a calibrate-sensor function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices;

a move-to-patch function to relatively position any of the color measuring sensors and a color patch for any of the plural different types of color measuring devices, the move-to-patch function being provided with a logical color patch number by the application program; and

a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned, the make-measurement function providing the application program with a color measurement value for the color patch;

wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices, and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called.

9. Computer-executable process steps according to Claim 8, wherein the calibrate-position function provides the application program with at least one display value that is to be displayed so as to instruct a user to position the recording medium or to position any of the color measuring sensors.

10. Computer-executable process steps according to Claim 8, wherein the calibrate-sensor function provides the application program with at least one display value that is to be displayed so as to instruct the user in calibrating the sensor.

11. Computer-executable process steps according to Claim 8, wherein the move-to-patch function causes the color measuring device to move any of the color measuring sensors so as to relatively position any of the color measuring sensors and the color patch.

12. Computer-executable process steps according to Claim 8, wherein the move-to-patch function provides the application program with at least one display value that is to be displayed so as to instruct the user to manipulate any of the color measuring devices so as to relatively position any of the color measuring sensors and the color patch.

13. Computer-executable process steps according to Claim 8, wherein the move-to-patch function causes the color measuring device to move the recording medium so as to relatively position any of the color measuring sensors and the color patch.

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27. Computer-executable process steps to provide an application programming interface (API), the API providing a common interface between an

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to be displayed so as to instruct the user in positioning any of the color measuring sensors; and a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned, the make-measurement function providing the application program with a color measurement value for the color patch, providing the application program with a call-again value in a case that the make-measurement function needs to be called multiple times to complete making the color measurement of the color patch and has not yet been called the multiple times, and providing the application program with a measurement display value that is to be displayed so as to instruct the user in making the color measurement.

28. Computer-executable process steps according to Claim 27, further comprising a get-device-capabilities function to provide the application program with a number of times that the calibrate-position function needs to be called so as to calibrate the relative position of the recording medium and to provide the application program with a number of times that the calibrate-sensor function needs to be called so as to calibrate any of the color measuring sensors.

29. Computer-executable process steps according to Claim 27, wherein the calibrate-position function further provides the application program with a number of times that the calibrate-position function needs to be called so as to calibrate the relative position of the recording medium.

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a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned, the

make-measurement function providing a color measurement value for the color patch;

wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices, and wherein for a color measuring device that is being operated, the DLL provides flow control data of the number of times that the function must be called.

45. A color calibration program, the color calibration program comprising computer-executable process steps to calibrate color fidelity of a color printer based on color measurements made by a color measuring device of color patches printed on a recording medium by the color printer, the computer-executable process steps comprising:

code to generate print data for the color patches;

code to send the print data to the color printer so as to print the color patches on the recording medium;

code to make color measurements of the color patches printed on the recording medium using any of plural different types of color measuring devices, the code to make color measurements calling functions provided by an application programming interface (API) that provides a common interface to the plural different types of color measuring devices, the code to make color measurements using the common interface; and

code to calibrate the color fidelity of the color printer based on the color measurements.

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50. A computer-readable medium according to Claim 46, wherein the flow control data is provided by a separate function other than the

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72. A computer-readable medium storing computer-executable process steps, the computer-executable process steps to provide an application programming interface (API), the API providing a

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to be displayed so as to instruct the user in
positioning any of the color measuring sensors; and
a make-measurement function to make a color
measurement of the patch at which any of the color
measuring sensors is relatively positioned, the
make-measurement function providing the application
program with a color measurement value for the color
patch, providing the application program with a
call-again value in a case that the make-measurement
function needs to be called multiple times to
complete making the color measurement of the color
patch and has not yet been called the multiple
times, and providing the application program with a
measurement display value that is to be displayed so
as to instruct the user in making the color
measurement.

73. A computer-readable medium according
to Claim 72, further comprising a get-device-
capabilities function to provide the application
program with a number of times that the calibrate-
position function needs to be called so as to
calibrate the relative position of the recording
medium and to provide the application program with a
number of times that the calibrate-sensor function
needs to be called so as to calibrate any of the
color measuring sensors.

74. A computer-readable medium according
to Claim 72, wherein the calibrate-position function
further provides the application program with a
number of times that the calibrate-position function
needs to be called so as to calibrate the relative
position of the recording medium.

75. A computer-readable medium according
to Claim 72, wherein the calibrate-position function

further provides the application program with a call-again value in a case that the calibrate-position function needs to be called multiple times so as to calibrate the relative position of the recording medium and has not yet been called the multiple times.

76. A computer-readable medium according to Claim 72, wherein the calibrate-sensor function further provides the application program with a number of times that the calibrate-sensor function needs to be called so as to calibrate any of the color measuring sensors.

77. A computer-readable medium according to Claim 72, wherein the calibrate-sensor function further provides the application program with a call-again value in a case that the calibrate-sensor function needs to be called multiple times so as to calibrate any of the color measuring sensors and has not yet been called the multiple times.

78. A computer-readable medium according to Claim 72, wherein the move-to-patch function causes the color measuring device to move the sensor so as to relatively position any of the color measuring sensors and the color patch.

79. A computer-readable medium according to Claim 72, wherein the move-to-patch display value instructs the user to manipulate any of the color measuring devices so as to relatively position any of the color measuring sensors and the color patch.

80. A computer-readable medium according to Claim 72, wherein the move-to-patch function causes any of the color measuring devices to

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88. A computer-readable medium according to Claim 72, wherein the application program is a color calibration program.

89. A computer-readable medium storing a dynamically linkable library (DLL), the DLL for making color measurements with any of plural different types of color measuring devices each having at least one color measuring sensor, the DLL comprising plural functions each of which is for operating any of the plural different types of color measuring devices, the plural functions comprising:

a calibrate-position function to calibrate a relative position of a recording medium with respect to any of the plural different types of color measuring devices;

a calibrate-sensor function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices;

a move-to-patch/function to relatively position any of the color measuring sensors and a color patch for any of the plural different types of color measuring devices, the move-to-patch function being provided with a logical color patch number; and

a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned, the make-measurement function providing a color measurement value for the color patch;

wherein in order to complete an operation performed by at least one of the plural functions,

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